

Work Order ID 149824

Wednesday, August 03, 2016 1:26:41 PM

149824

PPH

Page 1

Item ID: D206-642-522PHI Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible
 Start Date: 7/5/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 8/3/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: **DAS 21 9-89** Date: **AUG 04 2016** Tooling: Date: Run Start ***NR1***
 QC: **DAS 21 9-89** Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI9749	A	DAS 6 9-89						DAS 21 9-89	<i>16 09-01</i>
IIN-D206-642	Q								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile and create labels per PPP D206-642-522 CHG001								
									DAS 28 9-89
									JAN 18 2017
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
									DAS 6 9-89
									DAS 27 9-89
									SEP 28 2016

B149822PHI

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐						
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval				
Description Work Order Deviation			Disposition					
						Completed By		
						Lead hand / Supervisor Approval Verification		
QC / QA Coordinator Approval								
Root Cause		FAULT CATEGORY						
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐								

Picklist Print

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Page 1

Work Order ID: 149824

149824

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/5/2016

Required Date: 8/3/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 14.09.23 NEW ISSUE LL VERF:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN5C15A *AN5C15A* Bolt		Purchased	No				Each	17.0000	**	1			
DAS 28 9-89 Location Loc Qty Loc Code													
					ST337			17					
					M135058			17					
AN5C34A *AN5C34A* Bolt		Purchased	No				Each	92.0000	**	2			
DAS 28 9-89 Location Loc Qty Loc Code													
					FG			2					
					18918			2					
					over004			64					
					m132381			8					
					m132522			8					
					m132674			8					
					m133332			8					
					m133917			8					
					m133920			8					
					m133921			8					
					m134131			8					
					ST336			26					
					m130033			2					
					m131855			8					
					m131856			8					
					m132169			8					
					m132381			0					
					m133917			0					
					m133920			0					

135422 SEP 28 2016 DAS 6 9-89 27 9-89

SEP 28 2016 DAS 6 9-89 27 9-89

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Misabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER :							
Misidentified ☐	☐ Past Due								

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Work Order ID: 149824

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Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/5/2016

Required Date: 8/3/2016

Start Qty: 1.00

Required Qty: 1.00

D206-642-561PHI

Manufactured No

Each

0.0000

1

D206-642-561PHI

**

B149822

DAS 27 9-89

Replacement Skidtube,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

D206-648-013PHI

Manufactured No

Each

2.0000

1

D206-648-013PHI

**

149797
JAN 0 6 2017

DAS 27 9-89
SEP 2 8 2016

Ground Handling Wheel Modification

Location

Loc Qty

Loc Code

st392a

2

147486

2

D3672-7

Manufactured No

Each

1,111.000

24

D3672-7

**

Washer, Phenolic

Location

Loc Qty

Loc Code

FG

40

129987

25

133986

15

ST049

71

142572

71

ST051A

500

147220

500

ST057A

500

149431

500

NAS1149C0532R

Purchased

No

Each

268.0000

8

NAS1149C0532R

**

WASHER

Location

Loc Qty

Loc Code

GA

60

116513

60

ST266

208

m134756

18

m135056

190

135671

DAS 27 9-89
SEP 2 8 2016

DAS 28 9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																														
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																										
Root Cause		FAULT CATEGORY																																																																
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :				
Misidentified ☐	Past Due ☐																																																																	

Picklist Print

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Work Order ID: 149824

149824

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/5/2016

Required Date: 8/3/2016

D2932-2PHI Manufactured No Each 0.0000

D2932-2PHI

Saddle RH Out, 206

D2933-2PHI Manufactured No Each 0.0000

D2933-2PHI

Saddle RH In, 206

D2938-2PHI Manufactured No Each 0.0000

D2938-2PHI

Saddle RH Out, 206

D2939-2PHI Manufactured No Each 0.0000

D2939-2PHI

Saddle RH In, 206

AN3C41A Purchased No Each 254.0000

AN3C41A

Bolt

Start Qty: 1.00

Required Qty: 1.00

**

**

**

**

**

Location

Loc Qty

Loc Code

FG 10

122843 5

124975 1

m130081 4

OVER002 225

m132169 75

m132381 75

m132522 75

ST347 19

131651 19

DAS 28 9-89
149993 SEP 28 2016
DAS 27 9-89
149997 SEP 28 2016
DAS 27 9-89
149984 SEP 28 2016
DAS 27 9-89
149983 SEP 28 2016
DAS 27 9-89
8
DAS 27 9-89
DAS 27 9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

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Work Order ID: 149824

149824

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/5/2016

Required Date: 8/3/2016

D2652

Manufactured No

Each

594.0000

Start Qty: 1.00

Required Qty: 1.00

D2652

Bushing

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

45

31985

45

ST009

144

145959

144

ST012a

405

147559

0

148315

405

**

16
149586

DAS
6
9-89

DAS
27
9-89

SEP 28 2016

MS21043-3

Purchased

No

Each

724.0000

**

20

MS21043-3

Nut

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

80

103691

80

FP001

11

m130673

11

GA

237

m133990

237

ST302

307

m134861

7

m135058

300

ST304

89

m131340

89

DAS
6
9-89

DAS
27
9-89

SEP 28 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

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Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/5/2016

Required Date: 8/3/2016

AN5C11A

Purchased

No

Each

Start Qty: 1.00

Required Qty: 1.00

92.0000

4

AN5C11A

Bolt

**

DAS
6
9-89

SEP 28 2016

DAS
27
9-29

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

4

103715

4

over003

40

M135058

40

ST338

48

M131305

10

M131624

38

2

2

AN4C6A

Purchased

No

Each

293.0000

12

AN4C6A

Bolt

**

DA
6
9-89

SEP 28 2016

DAS
27
9-29

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

14

103344

4

121657

10

OVER002

50

m135297

50

ST345

229

m134955

129

m135127

100

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER :							

Picklist Print

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Work Order ID: 149824

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Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/5/2016

Required Date: 8/3/2016

D3672-3

Manufactured No

Each

Start Qty: 1.00
1,416.000

Required Qty: 1.00

D3672-3

Washer, Phenolic

**

24

149295

DAS

6

9-89

DAS

27

SEP 28 2016 89

DAS
28
9-89

Location

Loc Qty

Loc Code

FG	100	
133083	52	
134449	48	
FP001	213	
132639	213	
ST049	103	
146277	103	
ST051A	1000	
148691	500	
149409	500	

NAS1149C0432R

Purchased

No

Each

1,645.000

24

135544

**

SEP 28 2016

DAS

6

9-89

DAS

27

9-89

NAS1149C0432R

WASHER

DAS
28
9-89

Location

Loc Qty

Loc Code

GA	800	
m125807	427	
m134676	373	
ST266	845	
m135297	845	

Wednesday, August 03, 2016 1:26:40 PM

Shop Packet Print

Page 6

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER :							

Picklist Print

Wednesday, August 03, 2016 1:26:40 PM

Work Order ID: 149824

149824

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/5/2016

Required Date: 8/3/2016

MS21043-4

Purchased No

Each

Start Qty: 1.00

Required Qty: 1.00

545.0000

12

MS21043-4

Nut

**

SEP 2 8 2016

DAS DAS
6 27
9-89 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

40

104603

40

GA

17

m132803

17

OVER007

300

m134754

300

ST302

188

m134943

188

135407

D3456-1

Manufactured No

Each

71.0000

1

D3456-1

Washer

**

SEP 2 8 2016

DAS DAS
6 27
9-89 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

7

25701

7

ST037

64

144158

1

147066

13

147799

50

1

D3457-1

Manufactured No

Each

96.0000

2

D3457-1

Washer

**

SEP 2 8 2016

DAS DAS
6 27
9-89 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

10

32409

10

ST037

86

145625

86

2

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Wednesday, August 03, 2016 1:26:40 PM

Work Order ID: 149824

149824

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/5/2016

Required Date: 8/3/2016

D2712

Manufactured No

Each

Start Qty: 1.00
299.0000

Required Qty: 1.00

D2712

Set Screw

★★

10

DAS 6 9-89
DAS 27 9-89

SEP 28 2016

DAS 28 9-89

Location	Loc Qty	Loc Code
FG	55	
29962	55	
ST009	94	
140532	9	
141690	75	
89929	10	
ST012a	150	
147570	50	
147801	50	
149148	50	

D2934

Manufactured No

Each

46.0000

D2934

Saddle Spacer

★★

2

DAS 6 9-89
DAS 27 9-89

SEP 28 2016

DAS 28 9-89

Location	Loc Qty	Loc Code
FG	6	
31929	6	
ST014	40	
147488	40	

D2935

Manufactured No

Each

57.0000

D2935

Saddle Spacer

★★

2

DAS 6 9-89
DAS 27 9-89

SEP 28 2016

DAS 28 9-89

Location	Loc Qty	Loc Code
FG	6	
31793	6	
ST014	51	
146008	21	
147574	30	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Wednesday, August 03, 2016 1:26:40 PM

Page 9

Work Order ID: 149824

149824

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/5/2016

Required Date: 8/3/2016

AN3C36A

Purchased

No

Each

Start Qty: 1.00
266.0000

Required Qty: 1.00

AN3C36A

Bolt

DAS
6
9-89

DAS
27
9-89

SEP 28 2016

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

47

101261

4

122204

2

m131367

1

m132169

40

FP001

80

m131856

1

m132381

79

OVER002

139

m133916

80

m135310

59

Each

29.0000

9
3

DAS
6
9-89

DAS
27
9-89

SEP 28 2016

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

4

18914

4

ST347

25

M133694

25

3

AN3C35A

Purchased

No

Each

AN3C35A

Bolt

Wednesday, August 03, 2016 1:26:40 PM

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER :									

Picklist Print

Page 10

Wednesday, August 03, 2016 1:26:40 PM

Work Order ID: 149824

149824

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/5/2016

Required Date: 8/3/2016

NAS1149C0332R

Purchased

No

Each

Start Qty: 1.00
4,108.000

Required Qty: 1.00

24

NAS1149C0332R

WASHER

**

DAS 27
6 9-89

SEP 2 8 2016

Location	Loc Qty	Loc Code
FP001	918	
m135046	918	
GA	141	
m133284	141	
ST266	3049	
m134736	1049	
m135274	2000	

DAS 28
9-89

29

D3672-1

Manufactured

No

Each

820.0000

24

D3672-1

Washer, Phenolic

**

DAS 27
6 9-89

SEP 2 8 2016

Location	Loc Qty	Loc Code
FG	10	
85222	10	
FP001	454	
112218	4	
134785	450	
ST049	356	
147077	356	

DAS 28
9-89

29

D3396-3

Manufactured

No

Each

23.0000

2

D3396-3

Bushings

**

DAS 27
6 9-89
SEP 2 8 2016

Location	Loc Qty	Loc Code
ST034	23	
147439	23	

DAS 28
9-89

2

Wednesday, August 03, 2016 1:26:40 PM

Shop Packet Print

Page 10

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

Picklist Print

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Wednesday, August 03, 2016 1:26:40 PM

Work Order ID: 149824

149824

Parent Item: D206-642-522PHI

D206-642-522PHI

Parent Item Name: Skidtube RH, High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/5/2016

Required Date: 8/3/2016

Start Qty: 1.00

Required Qty: 1.00

AN5C35A

Purchased

No

Each

55.0000

1

AN5C35A

Bolt

DAS
28
9-89

Location

Loc Qty

Loc Code

ST336

55

M129871

55

Each

111.0000

2

AN5C32A

Purchased

No

AN5C32A

BOLT

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

4

18918

4

over004

100

131650

100

ST336

7

m132102

7

Each

130.0000

4

MS21043-5

Purchased

No

MS21043-5

Nut

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

20

101418

20

GA

76

116548

76

ST302

34

m135157

34

68-6
9-89
DAS 27
SEP 28 2016

68-6
9-89
DAS 27
SEP 28 2016

68-6
9-89
DAS 27
SEP 28 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D206-642 REV. Q AND INSTRUCTIONS FOR CONTINUED
AIRWORTHINESS ICA-D206-642 REV. 6 OR LATER APPROVED REVISION
REF. FAA STC: SA00475SE
REF. TCCA STC: SH98-4
REF. EASA STC: EASA.IM.R.S.01320

PURPOSE:

TO ADD D206-642-521/-522 SKIDTUBE INSTALLATIONS WITH WEARPADS ONLY AS
PREFERRED BY SOME CUSTOMERS.

PARTS LIST:

PARTS LIST OF SECTION 4.7 OF IIN-D206-642 REV. Q AND SECTION 32.17 OF ICA-D206-642
REV. 6 IS AMENDED AS SHOWN BELOW TO REFLECT THE ADDITION OF D206-642-521/-522/-
561 CONFIGURATIONS.

ITEM	Qty -521	Qty -522	Qty -561	Part Number	Description
	X			D206-642-521	FLOAT SKIDTUBE INSTALLATION, LH
		X		D206-642-522	FLOAT SKIDTUBE INSTALLATION, RH
	1	1	X	D206-642-561 561-1	FLOAT SKIDTUBE
	1	1		D206-648-013	GROUND HANDLING KIT
1			1	D3274-045	SKIDTUBE ASSEMBLY
3			1	D2646	* AFT CAP (1)
4			2	AN3C4A	* BOLT (1)
5A			2	NAS1149C0332R	* WASHER (1)
5B			2	D3672-1	* WASHER (1)
20A			9	D3537-9	* WEARPAD (1)
21A			1	D3537-11	* WEARPAD (1)
26A			40	AN3C4A	* BOLT (1)
26B			40	NAS1149C0332R	* WASHER (1)
26C			40	ALS7-1032-130	* INSERT (1)
34			1	MS27039C4-06	* SCREW (1)
35			1	NAS1149C0463	* WASHER (1)
6	1			D2932-1	SADDLE, FWD OUT, LH
6		1		D2932-2	SADDLE, FWD OUT, RH
7	1			D2933-1	SADDLE, FWD IN, LH
7		1		D2933-2	SADDLE, FWD IN, RH
8	1			D2938-1	SADDLE, AFT OUT, LH
8		1		D2938-2	SADDLE, AFT OUT, RH
9	1			D2939-1	SADDLE, AFT IN, LH
9		1		D2939-2	SADDLE, AFT IN, RH

A	NEW ISSUE	AK	16.05.30
REV.	DESCRIPTION	BY	DATE
DESIGN	AK	DART AEROSPACE USA, INC. EUGENE, OR DRAWING NO. DSI 9749 REV. A SHEET 1 OF 3 SCALE ADD -521/-522/-561 SKIDTUBES NTS COPYRIGHT © 2016 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	
DRAWN	AK		
CHECKED	AK		
MFG. APPR.	N/A		
APPROVED	AK		
DE APPR.	AK		
DATE	16.05.30		

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 149824 M.C.S.
1608-04

ITEM	Qty -521	Qty -522	Qty -561	Part Number	Description
	X			D206-642-521	FLOAT SKIDTUBE INSTALLATION, LH
		X		D206-642-522	FLOAT SKIDTUBE INSTALLATION, RH
			X	D206-642-561	FLOAT SKIDTUBE
10	8	8		AN3C41A	BOLT
11	16	16		D2652	BUSHING
12A	8	8		MS21043-3	NUT
12B	16	16		D3672-7	WASHER
13	4	4		AN5C11A (or AN5C12A)	* BOLT (2)
14	4	4		AN5C11A (or AN5C13A)	* BOLT (2)
15A	8	8		NAS1149C0532R	WASHER
15B	8	8		D3672-7	WASHER
16	12	12		AN4C6A	BOLT
17A	24	24		D3672-3	WASHER
17B	24	24		NAS1149C0432R	WASHER
18	12	12		MS21043-4	NUT
37	10	10		D2712	SET SCREW
38	2	2		D2934	SADDLE SPACER
39	2	2		D2935	SADDLE SPACER
50	9	9		AN3C36A	BOLT
51	3	3		AN3C35A	BOLT
52	24	24		NAS1149C0332R	WASHER
53	24	24		D3672-1	WASHER
54	12	12		MS21043-3	NUT
55	2	2		D3396-3	SPACER
56A	1	1		AN5C35A	BOLT
56B	1	1		AN5C15A	BOLT
60	2	2		AN5C32A	BOLT
61	2	2		AN5C34A	BOLT
62	4	4		MS21043-5	NUT

NOTES: (1) DENOTES THAT PART IS INCLUDED WITH D3274-045 ASSEMBLY ABOVE

(2) CHOICE OF BOLT WILL DEPEND ON CROSSTUBE (SEE INSTALLATION PROCEDURE)

DESIGN	AK	DART AEROSPACE USA, INC. EUGENE, OR	
DRAWN	AK		
CHECKED	AK	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9749	SHEET 2 OF 3
APPROVED	AK	TITLE	SCALE
DE APPR.	AK	ADD -521/-522/-561 SKIDTUBES NTS	
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INSTALLATION:

INSTALL D206-642-521/-522 SKIDTUBE INSTALLATIONS PER SECTION 3.3 OF IIN-D206-642 REV. Q.

WEIGHT AND BALANCE:

THE WEIGHT AND BALANCE TABLES IN SECTION 5.2.1/5.2.2 OF IIN-D206-642 REV. Q AND SECTION 3.10.2 OF ICA-D206-642 REV. 6 ARE AMENDED TO ADD D206-642-521/-522 CONFIGURATIONS AS SHOWN BELOW:

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D206-642-521 206L/L1/L3/L4 HIGH FLOAT, LH	36.4 lb 16.5 kg	104.1 in 2.64 m	3789 in lb 43.6 m kg	-43.0 in -1.09 m	-1565 in lb -18.0 m kg
D206-642-522 206L/L1/L3/L4 HIGH FLOAT, RH	36.4 lb 16.5 kg	104.1 in 2.64 m	3789 in lb 43.6 m kg	43.0 in 1.09 m	1565 in lb 18.0 m kg
D206-642-521 407 HIGH FLOAT, LH	36.4 lb 16.5 kg	104.1 in 2.64 m	3789 in lb 43.6 m kg	-47.0 in -1.19 m	-1711 in lb -19.6 m kg
D206-642-522 407 HIGH FLOAT, RH	36.4 lb 16.5 kg	104.1 in 2.64 m	3789 in lb 43.6 m kg	47.0 in 1.19 m	1711 in lb 19.6 m kg

MAINTENANCE:

THE NEW D206-642-521/-522/-561 FLOAT SKIDTUBES SHOULD BE MAINTAINED PER ICA-D206-642 REV. 6, OR LATER APPROVED REVISION.

DESIGN	AK	DART AEROSPACE USA, INC. EUGENE, OR	
DRAWN	AK		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9749	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		ADD -521/-522/-561 SKIDTUBES	NTS
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Work Order ID 149824

149824

Page 1

Wednesday, August 03, 2016 1:26:41 PM

Item ID: D206-642-522PHI Accept *N900040100* Setup Start *NS1*

Revision ID: Stop *NS2*

Item Name: Skidtube RH,High Gear, Standard Wearplates, DART (Apical) Tri-Bag Float Compatible

Start Date: 7/5/2016 Start Qty: 1.00 *1* Cust Item ID:

Required Date: 8/3/2016 Req'd Qty: 1.00 *1* Customer:

Reference:

Approvals: Process Plan: DAS 21 9-89 Date: AUG 04 2016 Tooling: Date: Run Start *NR1*

QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI9749	A								
IIN-D206-642	Q								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile and create labels per PPP D206-642-522 CHG001								
110	Pick Kit	0.00							
110	Packaging								
Packaging	Memo	0.00							

DAS
21

9-89 SEP 01 2016

REFERENCE ONLY

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D206-642 REV. Q AND INSTRUCTIONS FOR CONTINUED
AIRWORTHINESS ICA-D206-642 REV. 6 OR LATER APPROVED REVISION

REF. FAA STC: SA00475SE
REF. TCCA STC: SH98-4
REF. EASA STC: EASA.IM.R.S.01320

PURPOSE:

TO ADD D206-642-521/-522 SKIDTUBE INSTALLATIONS WITH WEARPADS ONLY AS
PREFERRED BY SOME CUSTOMERS.

PARTS LIST:

PARTS LIST OF SECTION 4.7 OF IIN-D206-642 REV. Q AND SECTION 32.17 OF ICA-D206-642
REV. 6 IS AMENDED AS SHOWN BELOW TO REFLECT THE ADDITION OF D206-642-521/-522/-
561 CONFIGURATIONS.

ITEM	Qty -521	Qty -522	Qty -561	Part Number	Description
	X			D206-642-521	FLOAT SKIDTUBE INSTALLATION, LH
		X		D206-642-522	FLOAT SKIDTUBE INSTALLATION, RH
	1	1	X	D206-642-561 561	FLOAT SKIDTUBE
	1	1		D206-648-013	GROUND HANDLING KIT
1			1	D3274-045	SKIDTUBE ASSEMBLY
3			1	D2646	* AFT CAP (1)
4			2	AN3C4A	* BOLT (1)
5A			2	NAS1149C0332R	* WASHER (1)
5B			2	D3672-1	* WASHER (1)
20A			9	D3537-9	* WEARPAD (1)
21A			1	D3537-11	* WEARPAD (1)
26A			40	AN3C4A	* BOLT (1)
26B			40	NAS1149C0332R	* WASHER (1)
26C			40	ALS7-1032-130	* INSERT (1)
34			1	MS27039C4-06	* SCREW (1)
35			1	NAS1149C0463	* WASHER (1)
6	1			D2932-1	SADDLE, FWD OUT, LH
6		1		D2932-2	SADDLE, FWD OUT, RH
7	1			D2933-1	SADDLE, FWD IN, LH
7		1		D2933-2	SADDLE, FWD IN, RH
8	1			D2938-1	SADDLE, AFT OUT, LH
8		1		D2938-2	SADDLE, AFT OUT, RH
9	1			D2939-1	SADDLE, AFT IN, LH
9		1		D2939-2	SADDLE, AFT IN, RH

A	NEW ISSUE	AK	16.05.30
REV.	DESCRIPTION	BY	DATE
DESIGN	AK	DART AEROSPACE USA, INC. EUGENE, OR	
DRAWN	AK		
CHECKED	<i>[Signature]</i>	REV. A SHEET 1 OF 3	
MFG. APPR.	N/A		
APPROVED	<i>[Signature]</i>	SCALE ADD -521/-522/-561 SKIDTUBES NTS	
DE APPR.	<i>[Signature]</i>		
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REFERENCE ONLY

ITEM	Qty -521	Qty -522	Qty -561	Part Number	Description
	X			D206-642-521	FLOAT SKIDTUBE INSTALLATION, LH
		X		D206-642-522	FLOAT SKIDTUBE INSTALLATION, RH
			X	D206-642-561	FLOAT SKIDTUBE
10	8	8		AN3C41A	BOLT
11	16	16		D2652	BUSHING
12A	8	8		MS21043-3	NUT
12B	16	16		D3672-7	WASHER
13	4	4		AN5C11A (or AN5C12A)	* BOLT (2)
14	4	4		AN5C11A (or AN5C13A)	* BOLT (2)
15A	8	8		NAS1149C0532R	WASHER
15B	8	8		D3672-7	WASHER
16	12	12		AN4C6A	BOLT
17A	24	24		D3672-3	WASHER
17B	24	24		NAS1149C0432R	WASHER
18	12	12		MS21043-4	NUT
37	10	10		D2712	SET SCREW
38	2	2		D2934	SADDLE SPACER
39	2	2		D2935	SADDLE SPACER
50	9	9		AN3C36A	BOLT
51	3	3		AN3C35A	BOLT
52	24	24		NAS1149C0332R	WASHER
53	24	24		D3672-1	WASHER
54	12	12		MS21043-3	NUT
55	2	2		D3396-3	SPACER
56A	1	1		AN5C35A	BOLT
56B	1	1		AN5C15A	BOLT
60	2	2		AN5C32A	BOLT
61	2	2		AN5C34A	BOLT
62	4	4		MS21043-5	NUT

NOTES: (1) DENOTES THAT PART IS INCLUDED WITH D3274-045 ASSEMBLY ABOVE

(2) CHOICE OF BOLT WILL DEPEND ON CROSSTUBE (SEE INSTALLATION PROCEDURE)

DESIGN	AK	DART AEROSPACE USA, INC. EUGENE, OR	
DRAWN	AK		
CHECKED	AK	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9749	SHEET 2 OF 3
APPROVED	AK	TITLE	SCALE
DE APPR.	AK	ADD -521/-522/-561 SKIDTUBES NTS	
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IIN-D412-742

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(CONTINUED FROM PAGE 17)

Item	Qty -011	Qty -041	Qty -015	Part Number	Description
46A	8			D3403-1	BUSHING
46B	8			D3403-5	BUSHING
47A	4			D2747	SET SCREW
47B	2			D3533-1	SET SCREW
48	16			AN4C6A	BOLT
49A	4			AN4C52A	BOLT
49B	4			AN4C53A	BOLT
50	8			AN6C12A	BOLT
51A	32			D3672-3	WASHER (REPLACES NAS1515H4L)
51B	32			AN960C416L	WASHER
52A	8			D3672-9	WASHER (REPLACES NAS1515H6L)
52B	8			AN960C616L	WASHER
53	8			D3672-11	WASHER (REPLACES NAS1515H7L)
54	24			MS21043-4	NUT
55	4			AN4C7A	BOLT
56	2			D3591-1	BUSHING
60	8			D3403-3	BUSHING
61	1			D3405-041	GHW LUG
62	1			D3405-043	GHW LUG
63	4			AN4C47A	BOLT
64	4			MS21043-4	NUT
70	1			D3407-041	TOW RING
71	2			D3417-3	WASHER
72	1			MS21043-4	NUT
73	1			D3456-1	WASHER
80			1	D2913	DOUBLER
81		***4		***ALS4-428-165	***INSERT (REPLACES NAS1329S4KB140)
82		***4		***AELS-1032-130	***INSERT (REPLACES NAS1330S3KB116)
83			2	MS21043-4	NUT
84			2	MS24693-C272	SCREW
85			1	MS35489-35	GROMMET
86			1	MS35489-93	GROMMET
87		***4		***MS27039C1-09	***SCREW
88		***4		***MS27039C4-08	***SCREW
89A		***4	2	***D3672-1	***WASHER (REPLACES NAS1515H3L)
89B		***4	2	***AN960C10L	***WASHER
90A		***4		***D3672-3	***WASHER (REPLACES NAS1515H4L)
90B		***4		***AN960C416L	***WASHER
91	3			AN3C37A	BOLT
92	2			AN3C40A	BOLT
93	3			AN3C41A	BOLT
94	3			AN3C42A	BOLT
95	3			AN3C43A	BOLT
96	9			AN3C44A	BOLT
98	10			AN3C47A	BOLT
99	66			AN960C10L	WASHER
100	33			MS21043-3	NUT

*DENOTES PART IS INCLUDED WITH D3391-041 ASSEMBLY ABOVE

**DENOTES THAT PART IS INCLUDED ABOVE ASSEMBLY

***DENOTES THAT PART IS INCLUDED WITH D3391-013

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Date: 11.10.19

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IIN-D412-742

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5.0 PARTS LIST

5.1 D412-742-011 (PMA/OEM) Float Skidtube Installation Parts List

Item	Qty -011	Qty -041	Qty -015	Part Number	Description
	X			D412-742-011	FLOAT SKIDTUBE INSTALLATION
	1	X		D412-742-041	FLOAT SKIDTUBE
	1		X	D412-742-015	ELECTRIC STEP KIT
		1		D3391-041	412 FLOAT SKIDTUBE
1		*24		*AN3C4A	*BOLT
3		*10		*AN3C6A	*BOLT
4		*4		*AN3C7A	*BOLT
5		*38		*AN960C10L	*WASHER
6		*4		*MS27039C4-12	*SCREW
7A		*4		*D3672-3	*WASHER (REPLACES NAS1515H4L)
7B		*4		*AN960C416L	*WASHER
21		*1		*D4095-041	*WEARSHOE (REPLACES D3564-1)
22		*1		*D4095-043	*WEARSHOE (REPLACES D3564-3)
23		*1		*D4095-045	*WEARSHOE (REPLACES D3564-5)
10		*1		*D3391-011	*412 FORWARD TUBE
11		**1		**D3401-041	**TOW CAP
12A		**10		**AELS-1032-225	**INSERT (REPLACES NAS1330S3KB166)
13		**10		**AN3C4A	**BOLT
14A		**4		**D3672-1	**WASHER (REPLACES NAS1515H3L)
14B		**10		**AN960C10L	**WASHER
24		**1		**D4095-051	**WEARSHOE (REPLACES D3564-13)
20		*1		*D3391-013	*412 MID TUBE
28		**24		**AELS-1032-130	**INSERT (REPLACES NAS1330S3KB116)
30		*1		*D3391-015	*412 AFT TUBE
25		**1		**D4095-049	**WEARPAD (REPLACES D3537-1)
26		**1		**D4095-047	**WEARPAD (REPLACES D3537-7)
31		**1		**D2646	**AFT CAP
32		**14		**AELS-1032-130	**INSERT
36		**8		**AELS-1032-225	**INSERT (REPLACES NAS1330S3KB366)
37A		**6		**AN3C4A	**BOLT
37B		**4		**AN3C5A	**BOLT
38A		**2		**D3672-1	**WASHER (REPLACES NAS1515H3L)
38B		**10		**AN960C10L	**WASHER
39		**4		**ALS4-428-165	**INSERT (REPLACES NAS1330S4KB151)
40	1			D2571	SADDLE, FWD OUTSIDE
41	1			D2572	SADDLE, FWD INSIDE
42	1			D2573	SADDLE, AFT OUTSIDE
43	1			D2574	SADDLE, AFT INSIDE
44	2			D2876	SADDLE SPACER
45	2			D2877	SADDLE SPACER

(CONTINUED ON PAGE 18)

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